INDEX

MOLECULAR BIOLOGY

Volume 3, Numbers 1-6, 1969

MOLECULAR BIOLOGY
Volume 3, Numbers 1-6, 1969
(A translation of Molekulyarnaya Biologiya)

A

Adler, V. V. - 273
Aitkhozhin, M. A. - 354
Akhmedov, Yu. D. - 325
Andreeva, I. V. - 199
Arion, V. Ya. - 231
Ashmarin, I. P. - 5
Astaurova, O. B. - 57, 632
Atanasov, B. P. - 406, 639
Atanasov, V. P. - 548
Avakyan, É. R. - 428
Avanesov, A. T. - 367
Avanesov, A. Ts. - 711
Avdonina, T. A. - 88

B

Baev, A. A. - 700, 724
Bekasova, O. D. - 24
Bekker, Zh. M. - 1, 288
Belikova, A. M. - 160
Belitser, V. A. - 261, 422
Belykh, R. A. - 348
Bendetskii, K. M. -251
Berezin, I. V. - 435
Birshtein, T. M. - 94
Bocharov, A. L. - 559
Bogdanova, S. L. - 215
Bolotina, I. A. - 520
Borisov, A. Yu. - 268, 307
Borisova, O. F. - 600
Borkhsenius, S. N. - 398
Bresler, S. E. - 10, 379
Breusov, Yu. N. - 583
Brushkov, V. I. - 449
Budker, V. G. - 193
Burd, G. I. - 113, 199
Bystrova, T. F. - 354

C

Chagina, S. B. - 657
Chernaenko, V. M. - 175
Chukanova, T. I. - 461
Chukniiski, P. P. - 149

D

Demchenko, A. P. - 261
Dimitrova, F. F. - 175
Dobrov, E. N. - 348
Dobychin, D. P. - 21
Drozdova, M. K. - 152
Dubrovin, V. N. - 552
Dzhedzhelava, D. A. - 559

E

Evdokimov, Yu. M. - 123
Evstigneev, V. B. 24, 31, 133

F

Frank-Kamenetskii, M. D. - 103 295
Firsov, L. M. - 379
Frisman, É. V. - 138, 169
Frolov, E. N. - 511

G

Gaitskhoki, V. S. - 245
Galanova, T. F. - 261, 422
Ganelin, V. L. - 511
Gatinskaya, L. G. - 665
Gauze, G. G. - 445
Gavrilov, V. Yu. - 215
Gazaryan, K. G. - 189
Georgiev, G. P. - 377, 428
Gershanovich, V. N. - 113, 199
Girshovich, A. S. - 180, 193, 288
Glishin, V. R. - 413
Golikova, A. I. - 138
Golub, E. I. - 692
Gorlenko, Zh. M. - 733
Grachev, M. A. - 288
Grineva, N. I. - 160
Gurova, G. I. - 665
Gurskii, G. V. - 592

I

Il'ina, I. D. - 398
Il'ina, M. D. - 307
Il'ina, T. S. - 733
Il'yashenko, B. N. - 566
Ivanov, V. I. - 238, 348, 583
Ivanov, V. T. - 473

K

Kafiani, K. A. - 338, 486
Kamzolova, S. G. - 57
Kanazir, D. R. - 413
Karpeiskii, M. Ya. - 559, 583
Kazarinova, L. Ya. - 700, 724
Khalizev, A. E. - 632
Khanson, K. P. - 184
Khesin, R. B. - 57, 733
Kir'yanov, G. I. - 189
Kiselev, N. A. - 57, 449
Kiselev, L. L. - 88, 503, 717
Klyucheva, V. V. - 113, 199
Knorre, D. G. - 160, 193, 288, 457
Knorre, K. G. - 123
Kogan, G. A. - 473
Komar, V. E. - 184
Kondrat'eva, E. N. - 538
Kononenko, A. A. - 467
Korzhov, V. A. - 457
Kozlov, A. V. - 657
Kozorovitskii, A. Ya. - 152
Krasnovskii, A. A. - 221
Krutyakov, V. M. - 10
Kupriyanova, N. S. - 338, 486
Kurbatov, V. A. - 160
Kurganov, B. I. - 609
Kushnev, V. P. - 302
Kuznetsova, A. A. - 184

L

Lastit', D. - 724
Lavrinenko, I. A. - 319
Lazurkin, Yu. S. - 103
Lesnik, E. A. - 575
Likhacheva, N. A. - 566
Likhtenshtein, G. I. - 325, 511

Litvin, F. F. - 45, 221
Livanova, N. B. - 609
Lopanitsina, V. V. - 538
Loshkareva, N. P. - 445
Lugovskoi, É. V. - 201

M

Mandzhgaladze, D. N. - 113
Mant'eva, V. L. - 231, 428
Manyakov, V. F. - 57
Markin, V. S. - 481
Martinek, K. - 435
Maslova, R. N. - 575
Matorin, D. N. - 467
Matvienko, N. I. - 68
Mazin, A. L. - 81, 672
Melamed, N. V. - 457
Metlyaev, L. T. - 75, 144
Milevskaya, I. S. - 75, 144
Minchenkova, L. E. - 238, 348
Mindlin, S. Z. - 733
Minyat, E. I. - 600
Mirzabekov, A. D. - 700, 724
Misyuk, L. I. - 520
Mokul'skaya, T. D. - 632
Molin, Yu. N. - 1, 288
Morozova, T. M. - 588

N

Naberukhin, Yu. I. - 152
Neifakh, S. A. - 37
Nguen Thki Dé - 138

O

Odintsova, M. S. - 449
Okulov, V. I. - 388
Olovyanishnikova, G. D. - 31
Osterman, L. A. - 273
Ovchinnikov, L. P. - 354, 367, 711
Ovchinnikov, Yu. A. - 473

P

Parin, A. V. - 503, 717
Permogorov, V. I. - 208
Pinaev, G. P. - 138
Piotrovskii, Yu. - 138
Pisarskaya, T. N. - 511
Podgorodnichenko, V. K. - 81
Poletaev, A. I. - 238
Polonskii, Yu. S. - 215
Popov, A. G. - 21
Poverennyi, A. M. - 81, 648
Privalov, P. L. - 543
Priyatkina, T. N. - 5
Prokof'ev, N. A. - 665
Ptitsyn, O. B. - 94, 495

R

Rachek, V. F. - 511
Rachkus, Yu. A. - 338, 486
Rakhimbekova, L. S. - 245
Ravin, V. K. - 332
Rikhter, D - 169
Rodionova, N. P. - 622
Rubin, A. B. - 467, 538, 552
Rubin, L. B. - 552

S

Sadovnikova, N. A. - 31
Safaryan, É. Kh. - 37
Salganik, R. I. - 588
Saprygin, D. B. - 648
Sergeeva, N. I. - 138
Shabarova, Z. A. - 665
Shabolenko, N. P. - 199
Shapot, V. S. - 622
Sharonov, Yu. A. - 406, 548, 639
Shchagina, L. V. - 169
Shchelkina, A. K. - 238
Shemyakin, M. F. - 57, 733
Shilin, V. V. - 473
Shlyapnikov, S. V. - 559
Shubina, T. N. - 180
Shugalii, A. V. - 103
Shul'ga, M. G. - 332
Shuvalov, V. A. - 45, 325
Shvedchikova, N. G. - 283
Shvinka, Yu. É. - 552
Sibileva, M. A. - 138
Silonova, G. V. - 609
Sladkova, I. A. - 208
Sokolova, N. I. - 665
Spirin, A. S. - 354, 367
Stefanovich, L. E. - 193, 528
Stolovtskii, Yu. M. - 133
Strel'tsova, Z. A. - 435
Stvolinskii, S. L. - 733
Sukhodolets, V. V. - 461
Sukhodolova, A. T. - 21
Syrtsova, L. A. - 511

T

Tarasevich, L. M. - 283
Tikhonenko, T. I. - 208
Timofeeva, M. Ya. - 338, 486
Tokarskaya, V. I. - 413
Trifonov, E. N. - 632
Troitskii, G. V. - 388
Troshkina, T. V. - 325
Tsynkalovskaya, S. N. - 422
Turoverova, L. V. - 398
Turovski, V. S. - 37

U

Ulanov, V. P. - 283

V

Vakhrusheva, T. E. - 160
Vanyushin, B. F. - 672
Varetskaya, T. V. - 261, 422
Varshavskii, Ya. M. - 123, 575
Vasilenko, S. K. - 175
Velikodvorskaya, G. A. - 208
Venediktov, P. S. - 467
Verkhoturov, V. N. - 538
Vill, Kh. - 435
Vinokurova, T. I. - 398
Vitvitskii, V. N. - 534
Vlasov, G. P. - 10
Vlasov, V. V. - 160
Vodnitska, B. - 138
Vol'kenshtein, M. V. - 75, 144, 406, 520, 548, 639, 680
Volkova, M. Ya. - 500
Vorob'ev, V. I. - 138, 169, 398

Z

Zaides, V. M. - 500
Zakharova, N. V. - 302
Zaslavskii, V. G. - 500
Zavil'gel'skii, G. B. - 566
Zbarskii, I. B. - 445
Zerov, Yu. P. - 5
Zvenigorodskii, V. I. - 692

MOLECULAR BIOLOGY
Volume 3, Numbers 1-6, 1969
(A translation of Molekulyarnaya Biologiya)

Volume 3, Number 1 January-February, 1969

	Engl.	Russ.
Radiospectroscopic Investigation of Complex Formation between tRNA and Mn^{2+} Ions – Zh. M. Bekker and Yu. N. Molin	1	3
Isolation and Characteristics of a DNA-Like RNA Obtained from Acetobacter suboxydans – I. P. Ashmarin, Yu. P. Zerov, and T. N. Priyatkina	5	9
Comparative Study of Mechanisms of Tryptic Hydrolysis of Ester and Amide Bonds – S. E. Bresler, G. P. Vlasov, and V. M. Krutyakov	10	15
Chromatographic Purification of Viruses on Porous Glass – S. E. Bresler, D. P. Dobychin, A. G. Popov, and A. T. Sukhodolova	21	29
Photochemical Properties of Phycocyanobilin – V. B. Evstigneev and O. D. Bekasova	24	32
Interaction of Ubiquinone 30 (Coenzyme Q_6) with Light-Excited Chlorophyll and Bacterioviridin – V. B. Evstigneev, G. D. Olovyanishnikova, and N. A. Sadovnikova	31	41
Kinasine Biosynthesis by Isolated Mitochondria – S. A. Neifakh, É. Kh. Safaryan, and V. S. Turovskii	37	49
Mechanism of Prolonged Afterluminescence of Plant Leaves and Energy Storage in the Photosynthetic Reaction Centers – V. A. Shuvalov and F. F. Litvin	45	59
Formation of RNA Polymerase – DNA Complexes – S. G. Kamzolova, V. F. Manyakov, N. A. Kiselev, M. F. Shemyakin, O. B. Astaurova, and R. B. Khesin	57	74
Partial Diploidy in Bacteriophage T4B – N. I. Matvienko	68	88
Assignment of Bands in the Absorption Spectrum of Iron – Porphin Complexes and Interpretation of Magnetooptical Rotation in These Bands – M. V. Vol'kenshtein, L. T. Metlyaev, and I. S. Milevskaya	75	97
Antigenic Determinants of Deoxyribonucleic Acids Damaged by Ultraviolet Radiation – V. K. Podgorodnichenko, A. M. Poverennyi, and A. L. Mazin	81	105
Specific mRNA – tRNA Complexes in a Ribosome-Free System – L. L. Kiselev and T. A. Avdonina	88	113
Method for Determining the Stability of the Helical Structure of Polypeptide Chains from the Helix-Coil Transitions with a Change of Solvent Composition – T. M. Birshtein and O. B. Ptitsyn	94	121
Viscometric Study of the Helix-Coil Transition in the DNA of Phage T2 – A. V. Shugalii, M. D. Frank-Kamenetskii, and Yu. S. Lazurkin	103	133
Escherichia coli Mutants with Defects in the Glycolysis System and in Pentose Phosphate Pathways for Utilization of Carbohydrates – V. N. Gershanovich, D. N. Mandzhgaladze, V. V. Klyucheva, and G. I. Burd	113	146

Volume 3, Number 2 March-April, 1969

	Engl.	Russ.
Study of the Kinetics of the Structural Transition of DNA in Solution by the Method of Thermal "Shock" – Yu. M. Evdokimov, K. G. Knorre, and Ya. M. Varshavskii	123	163

Investigation of the Photoreaction Mechanism in a Chlorophyll Analog, Magnesium Phthalocyanin, by Electroconductivity Measurement – Yu. M. Stolovtskii and V. B. Evstigneev 133 176
The Effects of Histone Concentration on the Optical and Hydrodynamic Behavior of DNA – Histone Complexes – É. V. Frisman, M. A. Sibileva, G. P. Pinaev, V. I. Vorob'ev, B. Vodnitska, Yu. Piotrovskii, Nguen Thki Dé, A. I. Golikova, and N. I. Sergeeva 138 182
Induced Optical Activity of the Iron–Porphyrin Complex. I. Contribution of One-Electron Terms – M. V. Volkenstein, L. T. Metlyaev, and I. S. Milevskaya. 144 190
Graphic Investigation of Equations Describing the Oxygenation of Hemoglobin – P. P. Chukniiski 149 197
Investigation of the Association of Certain Nucleoside Derivatives by Infrared Spectroscopy – M. K. Drozdova, A. Ya. Kozorovitskii, and Yu. I. Naberukhin 152 201
Reaction of 4-(N-2-Chloroethyl-N-methylamino)benzaldehyde with Transfer RNA – A. M. Belikova, T. E. Vakhrusheva, V. V. Vlasov, N. I. Grineva, D. G. Knorre, and V. A. Kurbatov. 160 210
Effect of Ionic Strength of Solution on the Thermodynamic Rigidity of the Molecules of Native DNA – L. V. Shchagina, D. Rikhter, E. V. Frisman, and V. I. Vorob'ev. . . . 169 221
Structural Analysis of Valinic Transfer RNA_1 – S. K. Vasilenko, F. F. Dimitrova, and V. M. Chernaenko. 175 228
Production and Properties of the Reaction Product of Uridine and N-Cyclohexyl-N'-β-(4-methylmorpholinium)ethylcarbodiimide – A. S. Girshovich and T. N. Shubina 180 235
Investigation of the Protein-Synthesizing System from Regenerating Rat Liver in the Early Period after Hepatectomy – V. E. Komar, K. P. Khanson, and A. A. Kuznetsova . . . 184 239
RNA – DNA Hybridization in the Presence of Dimethyl Sulfoxide – K. G. Gazaryan and G. I. Kir'yanov 189 245
Interaction between a Water-Soluble Carbodiimide and Ribosomes – V. G. Budker, A. S. Girshovich, D. G. Knorre, and L. E. Stefanovich. 193 250
Transport Mutants of E. coli with Different Lesions in the Roseman Phosphotransferase System – G. I. Burd, V. P. Shabolenko, I. V. Andreeva, V. V. Klyucheva, and V. N. Gershanovich 199 256
Effect of Temperature on Biological Activity of Messenger RNA – S. L. Bogdanova, Yu. S. Polonskii, and V. Yu. Gavrilov 215 276
Thermochemiluminescence of Solutions of Chlorophyll and Its Analogues after Illumination at Low Temperature – A. A. Krasnovskii and F. F. Litvin. 221 282
Influence of Ultraviolet Irradiation on Transcription – V. L. Mant'eva and V. Ya. Arion . . 231 294
The Use of Dyes to Investigate Interphage DNA Structure – V. I. Permogorov, I. A. Sladkova, G. A. Velikodvorskaya, and T. I. Tikhonenko. 208 267
Thermodynamic Characteristics of DNA – Cu^+ and DNA – Ag^+ Complexes – A. I. Poletaev, V. I. Ivanov, L. E. Minchenkova, and A. K. Shchelkina. 238 303

Volume 3, Number 3 May-June, 1969

Template Activity of the RNA Fractions of Rat Liver Mitochondria – L. S. Rakhimbekova and V. S. Gaitskhoki. 245 315
Effect of Exohydrolase on a Linear Homopolymer: A Mathematical Experiment – K. M. Bendetskii 251 322
Successive Stages in the Clotting of the Fibrin Monomer: Formation of the Active Form and Polymerization. 1. Reversible Modification of Fibrin Monomer Due to pH Shifts – T. V. Varetskaya, T. F. Galanova, É. V. Lugovskoi, A. P. Demchenko, and V. A. Belitser 261 334

	Engl.	Russ.
Thermodynamic Evidence Against One-Quantum Electron Transport in Plant Photosynthesis – A. Yu. Borisov	268	343
Kinetics of Template Synthesis of RNA – L. A. Osterman and V. V. Adler	273	349
Structure of the Granulosis Virus of Siberian Silkwork Dendrolimus sibiricus Tschetw. – N. G. Shvedchikova, V. P. Ulanov, and L. M. Tarasevich	283	361
NMR Studies of the Intermolecular Interaction of N-Cyclohexyl-N'-β-(4-methylmorpholinium)ethylcarbodiimide with tRNA – Zh. M. Bekker, Yu. N. Molin, A. S. Girshovich, M. A. Grachev, and D. G. Knorre	288	366
Theory of the Helix-Coil Transition for the Case of Double-Stranded DNA – M. D. Frank-Kamenetskii and A. D. Frank-Kamenetskii	295	375
Separation of Complementary Strands of Mammalian DNA during Thermal Denaturation – V. P. Kushner and N. V. Zakharova	302	384
Absorption and Fluorescent Characteristics of Pea Chloroplasts and Their Fragments – A. Yu. Borisov and M. D. Il'ina	307	391
Binding of Cortisone by Calf Thymus Histones – I. A. Lavrinenko	319	406
Determination of Energy Parameters of Local Conformational Transformations in Proteins by the Paramagnetic-Tracer Method – G. I. Likhtenshtein, T. V. Troshkina, Yu. D. Akhmedov, and V. F. Shuvalov	325	413
DNA Synthesis in Vegatative Phage and Prophage N15 – M. G. Shul'ga and V. K. Ravin	332	421
Transcription of Repetitive DNA Sequences in Embryogenesis – Yu. A. Rachkus, M. Ya. Timofeeva, N. S. Kupriyanova, and K. A. Kafiani	338	428
The Use of Cu^+ and Ag^+ Ions for the Investigation of the DNA Structure inside Phage Particles – L. E. Minchenkova, R. A. Belykh, E. N. Dobrov, and V. I. Ivanov	348	441
Informosomes of Loach Embryos (Misgurnus fossilis L). 1. Sedimentation and Density Characteristics – L. P. Ovchinnikov, M. A. Aitkhozhin, T. F. Bystrova, and A. S. Spirin	354	449
Informosomes of Loach Embryos. 2. Evidence of Their Preexistence in the Cell – L. P. Ovchinnikov, A. T. Avanesov, and A. S. Spirin	367	465
Commission on Biochemical Nomenclature of the IUPAC-IUB	373	473
BOOK REVIEWS		
V. S. Shapot, Nucleases – G. P. Georgiev	377	478

Volume 3, Number 4 July-August, 1969

	Engl.	Russ.
Mechanism and Kinetics of the Reaction Catalyzed by Phosphorylase b – S. E. Bresler and L. M. Firsov	379	483
Ultraviolet Spectra of Native and Denatured Bovine γ-Globulin – V. I. Okulov and G. V. Troitskii	388	495
Solubility and Dissociation of Chromosomal Nucleoprotein Complexes – S. N. Borkhsenius, L. V. Turoverova, T. I. Vinokurova, I. D. Il'ina, and V. I. Vorob'ev	398	507
Investigation of Modified Cytochrome c with Myoglobin-Like Properties by the Magnetooptic-Rotation Method – B. P. Atanasov, M. V. Vol'kenshtein, and Yu. A. Sharonov	406	518
Study of the Structure of the DNA – RNA Complex Formed in the Absence of DNA Replication – V. I. Tokarskaya, V. R. Glishin, and D. R. Kanazir	413	527
Successive Stages in the Clotting of Fibrin Monomer: Transition to an Active Conformation and Polymerization. 2. The Effects of Calcium, Ethylenediaminetetraacetate, and Citrate Ions – S. N. Tsynkalovskaya, T. V. Varetskaya, T. F. Galanova, and V. A. Belitser	422	538

	Engl.	Russ.
Nuclear Ribonucleoproteins Containing Messenger RNA. 6. Classes of Nuclear D-RNA Bound to Informofers – V. L. Mant'eva, É. R. Avakyan, and G. P. Georgiev	428	545
Kinetic Manifestations of the Active-Center Structure of α-Chymotrypsin during Inhibition of Enzyme Activity by Ag^+ Cations – K. Martinek, Kh. Vill, Z. A. Strel'tsova, and I. V. Berezin	435	554
Effect of Olivomycin and Echinomycin on Initiation and Growth of RNA Molecules Catalyzed by RNA-Polymerase – G. G. Gauze, N. P. Loshkareva, and I. B. Zbarskii	445	566
Electron-Microscope Investigation of the Structure of Cytoplasmic Ribosomes from Bean Leaves – V. I. Brushkov, N. A. Kiselev, and M. S. Odintsova	449	571
Inhibition of Valyl-tRNA Synthetase Reaction under the Effect of Acetylated tRNA – D. G. Knorre, V. A. Korzhov, and N. V. Melamed	457	579
Mutations Affecting Exogenous Thymine Assimilation by Escherichia coli K-12 Cells with Damaged Thymidylate Synthetase Activity – T. I. Chukanova and V. V. Sukhodolets	461	584
Investigation of Afterglow and Photoinduced Oxidative-Reductive Transformations of Cytochromes of Purple Bacteria – P. S. Venediktov, A. A. Kononenko, D. N. Matorin, and A. B. Rubin	467	592
Optical Properties of Peptide Systems. 1. Interaction of Amide Chromophores in Cyclic Peptides – Yu. A. Ovchinnikov, V. T. Ivanov, V. V. Shilin, and G. A. Kogan	473	600
The Impedance of Artificial Bimolecular Phospholipid Membranes in the Presence of Ion Carriers – V. S. Markin	481	610
Homologies in RNA Populations at Different Stages of Embryogenesis – Yu. A. Rachkus, N. S. Kupriyanova, M. Ya. Timofeeva, and K. A. Kafiani	486	617
Distribution of Amino-Acid Residues between Helical and Nonhelical Areas in Globular Proteins – O. B. Ptitsyn	495	627
Slowly Sedimenting Particles in Cytoplasmic Extract of Ehrlich's Ascites Carcinoma Cells Infected with Sendai Virus – M. Ya. Volkova, V. M. Zaides, and V. G. Zaslavskii	500	635
Selective and Reversible Inhibition of Aminoacylating Activity of Tryptophanyl-RNA-Synthetase – A. V. Parin and L. L. Kiselev	503	639

Volume 3, Number 5 September-October, 1969

Investigation of the Structure of Molybdenum- and Iron-Containing Nonheme Protein – A Component of the Nitrogen-Fixing System of Azotobacter vinelandii – L. A. Syrtsova, G. I. Likhtenshtein, T. N. Pisarskaya, V. L. Ganelin, E. N. Frolov, and V. F. Rachek	511	651
A Study of the Structure of Lysozyme and Its Complex with Trimeric N-Acetylglucosamine by the Optical Rotatory Dispersion Method – I. A. Bolotina, M. V. Vol'kenshtein, and L. I. Misyuk	520	662
Influence of RNA with Acetylated 2'-Hydroxy Groups of the Ribose Moieties on Aminoacyl-tRNA Binding by Ribosomes – L. E. Stefanovich	528	672
Influence of Methyl Orange on Tryptic Hydrolysis and Thermal Denaturation of Serum Albumin – V. N. Vitvitskii	534	678
Spectrophotometric Studies of a New Strain of Purple Sulfur Bacteria – V. N. Verkhoturov, E. N. Kondrat'eva, V. V. Lopanitsina, and A. B. Rubin	538	683
The Heat of Fusion of the DNA Double Helix – P. L. Privalov	543	690
Magnetooptical Rotatory Dispersion of Ferrimyoglobin and Hemin and of Their Complexes with Certain Ligands – V. P. Atanasov, M. V. Vol'kenshtein, and Yu. A. Sharonov	548	696
Two Systems of Primary Reactions in the Photosynthesis of Purple Bacteria Rhodopseudomonas sp. – L. B. Rubin, A. B. Rubin, V. N. Dubrovin, and Yu. É. Shvinka	552	700

Engl./Russ.

Modification of Tyrosine Residues of L-Aspartate: 2-Oxoglutarate Aminotransferase by Tetranitromethane – S. V. Shlyapnikov, A. L. Bocharov, D. A. Dzhedzhelava, and M. Ya. Karpeiskii 559 709
The Role of Repairing Enzymes in the Induction of Mutations in Phages with Single-Stranded DNA – G. B. Zavil'gel'skii, N. A. Likhacheva, and B. N. Il'yashenko 566 717
Influence of the Conformation on the Rate of the Slow Isotopic Exchange of Hydrogen in Poly(adenylic Acid) and Its Complexes – R. N. Maslova, E. A. Lesnik, and Ya. M. Varshavskii 575 728
Reversible Photochemical Reaction of the Enzyme Aspartate Aminotransferase – Yu. N. Breusov, V. I. Ivanov, and M. Ya. Karpeiskii 583 738
Location of H^3-Cortisone in the Chromatin of Rat Liver Cell Nuclei – T. M. Morozova and R. I. Salganik 588 745
Structure of the DNA – Actinomycin Complex – G. V. Gurskii 592 749
Complexes of Deoxyribonucleoprotein with Acridine Orange – O. F. Borisova and E. I. Minyat 600 758
Allosteric Inhibition of Phosphorylase B from Rabbit Muscle – G. V. Silonova, N. B. Livanova, and B. I. Kurganov 609 768
The High-Polymeric Component of Membrane RNA from the Endoplasmic Reticulum of Rat Liver – V. S. Shapot and N. P. Rodionova 622 785

CHRONICLES
Structure and Genetic Functions of Biopolymers – O. B. Astaurova, T. D. Mokul'skaya, E. N. Trifonov, and A. E. Khalizev 632 796

Volume 3, Number 6 November-December, 1969

Vladimir Aleksandrovich Engel'gart (On His Seventy-Fifth Birthday) 637 803
A Study of the Magnetooptical Rotatory Dispersion of Complexes of Hemin and Heme with Low-Molecular-Weight Ligands – B. P. Atanasov, M. V. Vol'kenshtein, and Yu. A. Sharonov 639 804
Structure of the Regions of the DNA Molecule Reacting with Different Antibodies – D. B. Saprygin and A. M. Poverennyi 648 815
Chromatographic Method for Isolation of Escherichia coli B Nucleoproteins – A. V. Kozlov and S. B. Chagina 657 827
Properties of the Internucleotide-(P_i–N)-Peptide Knot in Model Compounds – N. I. Sokolova, G. I. Gurova, L. G. Gatinskaya, Z. A. Shabarova, and N. A. Prokof'ev 665 837
Comparative Study of the Frequency of Incidence of Pyrimidine Clusters in the DNA of Some Vertebrates – A. L. Mazin and B. F. Vanyushin 672 846
A Molecular Theory of Muscular Contraction – M. V. Vol'kenshtein 680 856
Incapacity of Noninducible Prophage for Detachment from the Bacterial Chromosome – E. I. Golub and V. I. Zvenigorodskii 692 869
Acceptor Activity of Certain Cleaved Molecules of Yeast Valine tRNA 1 – A. D. Mirzabekov, L. Ya. Kazarinova, and A. A. Baev 700 879
Informosomes of the Loach Embryo. 3. Specificity of Interaction between "Informosome-forming Protein" and RNA – L. P. Ovchinnikov and A. Ts. Avanesov 711 893
Multiplicity of Active Forms of Tryptophanyl-RNA Synthetase – A. V. Parin and L. L. Kiselev 717 901
Mechanism of the Restoration of Acceptor Activity of Halves of a Cut Yeast Valine tRNA Molecule – A. D. Mirzabekov, L. Ya. Kazarinova, D. Lastit', and A. A. Baev 724 909

A Study of the Functions of the Components of the Molecule of RNA Polymerase by Means of Mutations – R. B. Khesin, Zh. M. Gorlenko, M. F. Shemyakin, S. L. Stvolinskii, S. Z. Mindlin, and T. S. Il'ina 733 920

INDEX

Author Index, Numbers 1-6, 1969 749

Tables of Contents, Numbers 1-6, 1969 751